

MIAMI-DADE COUNTY PRODUCT CONTROL SECTION

11805 SW 26 Street, Room 208 Miami, Florida 33175-2474 T (786)315-2590 F (786) 31525-99

www.miamidade.gov/economy

DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER) BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

Firestone Building Products Company, LLC 250 West 96th Street Indianapolis, IN 46260

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: Firestone BASEGARD SA Modified Bitumen Roof Systems for Concrete Decks.

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

Mynu

This NOA revises NOA # 12-0508.02 and consists of pages 1 through 60. The submitted documentation was reviewed by Alex Tigera.



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14

Page 1 of 60

ROOFING SYSTEM APPROVAL

Category:RoofingSub-Category:ModifiedMaterial:APP, SBSDeck Type:ConcreteMaximum Design Pressure-247.5 psf.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT: TABLE 1

.	D	Test	Product
Product	Dimensions	Specification	Description
BASEGARD SA	39.4" x 65' 3"	ASTM D6163	Fiberglass reinforced SBS modified bitumen, self- adhering base sheet with a smooth sanded surface.
APP 180	39.4" x 32'10"	ASTM D6222	Polyester reinforced APP modified bitumen, granule surfaced membrane with burn off film.
APP 180 UltraWhite	39.4" x 32'10"	ASTM D6222	Polyester reinforced APP modified bitumen, UltraWhite, granule surfaced membrane with burn off film.
APP 180 FR	39.4" x 32'10"	ASTM D6222	Polyester reinforced, fire resistant APP modified bitumen, granule surfaced membrane with burn off film.
APP 180 FR UltraWhite	39.4" x 32'10"	ASTM D6222	Polyester reinforced, fire resistant APP modified bitumen, UltraWhite granule surfaced membrane with burn off film.
SBS Glass	39.4" x 33'6"	ASTM D6163	Fiberglass reinforced, SBS modified bitumen, granule surfaced membrane with sanded bottom surface.
SBS Glass Torch Base	39.4" x 33'6"	ASTM D6163	Fiberglass reinforced, SBS modified bitumen ply with sanded top surface and burn off film.
SBS Poly Torch Base	39.4" x 33'6"	ASTM D6164	Polyester reinforced, SBS modified bitumen ply with sanded top surface with burn off film.
SBS Torch	39.4" x 33'6"	ASTM D6164	Polyester reinforced, SBS modified bitumen membrane, granule surfaced with burn off film.
SBS Glass FR Torch	39.4" x 33'6"	ASTM D6163	Fiberglass reinforced, fire resistant, SBS modified bitumen membrane, granule surfaced with burn off film.
SBS Glass FR Torch UltraWhite	39.4" x 33'6"	ASTM D6163	Fiberglass reinforced, fire resistant, SBS modified bitumen membrane, UltraWhite granule surfaced with burn off film.
SBS Torch UltraWhite	39.4" x 33'6"	ASTM D6164	Polyester reinforced, SBS modified bitumen membrane, UltraWhite granule surfaced with burn off film.
SBS FR Torch	39.4" x 33'6"	ASTM D6164	Polyester reinforced, fire resistant, SBS modified



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 2 of 60

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT: TABLE 1

		<u>Test</u>	Product
Product	Dimensions	Specification	<u>Description</u>
			bitumen, granule surfaced with burn off film.
SBS FR Torch UltraWhite	39.4" x 33'6"	ASTM D6164	Polyester reinforced, fire resistant, SBS modified bitumen membrane, UltraWhite granule surfaced with burn off film.
SBS Cap	39.4" x 33'6"	ASTM D6164	Polyester reinforced, SBS modified bitumen membrane, granule surfaced with sanded bottom surface.
SBS Cap UltraWhite	39.4" x 33'6"	ASTM D6164	Polyester reinforced, SBS modified bitumen membrane, UltraWhite granule surfaced with sanded bottom surface.
SBS FR Cap	39.4" x 33'6"	ASTM D6164	Polyester reinforced, fire resistant, SBS modified bitumen membrane, UltraWhite granule surfaced with sanded bottom surface.
SBS FR Cap UltraWhite	39.4" x 33'6"	ASTM D6164	Polyester reinforced, fire resistant, SBS modified bitumen membrane, UltraWhite granule surfaced with sanded bottom surface.
SBS Premium FR	39.4" x 33'6"	ASTM D6164	Polyester reinforced, fire resistant, SBS modified bitumen membrane, granule surfaced with sanded bottom surface.
SBS Premium FR UltraWhite	39.4" x 33'6"	ASTM D6164	Polyester reinforced, fire resistant, SBS modified bitumen membrane, UltraWhite granule surfaced with sanded bottom surface.
SBS Premium	39.4" x 33'6"	ASTM D6164	Polyester reinforced, SBS modified bitumen membrane, granule surfaced with sanded bottom surface.
SBS Premium Torch	39.4" x 33'6"	ASTM D6164	Polyester reinforced, SBS modified bitumen membrane, granule surfaced with burn off film.
SBS Premium Torch UltraWhite	39.4" x 33'6"	ASTM D6164	Polyester reinforced, SBS modified bitumen membrane, UltraWhite granule surfaced with burn off film.
SBS Premium FR Torch	39.4" x 33'6"	ASTM D6164	Polyester reinforced, fire resistant, SBS modified bitumen membrane, granule surfaced with burn off film.
SBS Premium FR Torch UltraWhite	39.4" x 33'6"	ASTM D6164	Polyester reinforced, fire resistant, SBS modified bitumen membrane, UltraWhite granule surfaced with burn off film.
I.S.O. Twin Pack Insulation Adhesive	750 ml cartridges	Proprietary	A two-component polyurethane insulation adhesive.
I.S.O. Fix II	30 lbs.	Proprietary	A single component polyurethane insulation adhesive.
			370 1 37 14 0 34 0 5



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 3 of 60

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT: TABLE 1

<u>Product</u>	Dimensions	<u>Test</u> Specification	<u>Product</u> <u>Description</u>
I.S.O. Stick	5 gal.	Proprietary	A two-component polyurethane insulation adhesive.
SBS Base	39.4" x 50'	ASTM D6163	Fiberglass reinforced, SBS modified bitumen ply with sanded surfaces.
SBS Premium Base	39.4" x 50'	ASTM D6164	Fiberglass reinforced, SBS modified bitumen ply with sanded surfaces.
SBS Poly Base	39.4" x 50'	ASTM D6164	Polyester reinforced, SBS modified bitumen membrane with sanded surfaces.
SBS Smooth	39.4" x 33'6"	ASTM D6164	Polyester reinforced, SBS modified bitumen membrane with sanded surfaces.
SBS Glass FR	39.4" x 33'6"	ASTM D6163	Fiberglass reinforced, fire resistant, SBS modified bitumen membrane, granule surfaced with sanded bottom surface.
SBS Glass FR UltraWhite	39.4" x 33'6"	ASTM D6163	Fiberglass reinforced, fire resistant, SBS modified bitumen membrane, UltraWhite granule surfaced with sanded bottom surface.
Ply VI	39.4" x 160'6"	ASTM D 2178	Asphalt impregnated, glass fiber mat reinforced, roofing ply.
Ply IV	39.4" x 160'6"	ASTM D 2178	Asphalt impregnated, glass fiber mat reinforced, roofing ply.
SA Primer	5 gal.	Proprietary	Polymer based primer.



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 4 of 60

APPROVED INSULATIONS:

TABLE 2

<u>Product Name</u>	Product Description	<u>Manufacturer</u> (With Current NOA)
ISO 95+ GL and tapered	Polyisocyanurate insulation board	Firestone Building Products
ISOGARD HD	High Density polyisocyanurate roof board with a coated fiberglass facer	Firestone Building Products
ISOGARD HD Composite	Polyisocyanurate foam core laminated to ISOGARD HD board	Firestone Building Products
DensDeck, DensDeck Prime	Silicon treated gypsum	G-P Gypsum
RESISTA and tapered	Polyisocyanurate insulation board with coated fiberglass facer	Firestone Building Products
SECUROCK Gypsum-Fiber Roof Board	Gypsum roof board with fiber reinforcement	USG Corp.

APPROVED FASTENERS:

TABLE 3

<u>Fastener</u> <u>Number</u>	<u>Product</u> <u>Name</u>	<u>Product</u> <u>Description</u>	<u>Dimensions</u>	<u>Manufacturer</u> (With Current NOA)
1.	Firestone Heavy-Duty	Insulation and membrane fastener	Various	Firestone Building Products
2.	Firestone Concrete Drive	1/4" diameter concrete deck fastener.	Various	Firestone Building Products
3.	Insulation Fastening Plate	Insulation plate for use with Firestone Fasteners	3" round	Firestone Building Products
4.	Firestone All-Purpose	Insulation and membrane fastener	Various	Firestone Building Products
5.	Coiled Metal Batten Strip	Galvalume batten strip	220' coil	Firestone Building Products



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 5 of 60

EVIDENCE SUBMITTED:

Test Agency	Test Identifier	Description	Date
Factory Mutual Research Corp.	3044812	FM 4470	05/04/12
	3014537	FM 4470	11/29/04
	3020395	FM 4470	06/14/10
	3022492	FM 4470	01/17/05
	3028093	FM 4470	10/26/07
	3033218	FM 4470	08/12/08
	3035017	FM 4470	04/15/09
	3035560	FM 4470	01/11/10
	3040795	FM 4470	03/24/11
	3042665	FM 4470	05/04/12
	3040109	FM 4470	03/09/11
	3044047	FM 4470	05/17/12
	3047398	FM 4470	08/15/13
Underwriters Laboratories	R9516/11NK04032	UL 790	11/18/11
Trinity ERD	F8800.01.08-R1	ASTM D903 / TAS114	01/17/08
	F36650.08.11-1-R2	ASTM D6163	05/08/12
	F36650.09.12	ASTM D4601/ASTM D2178	09/04/12
	F31960.05.10-1	ASTM D4977	05/19/10
	F41070.08.12	ASTM D6222 / TAS110	08/24/12
	F31960.08.10-1	ASTM D4977	08/25/10
PRI Construction Materials	FBP-018-02-01	ASTM D6163	09/07/04
Technologies, LLC	FBP-038-02-02	ASTM D6164	01/12/11
	FBP-038-02-03	ASTM D6164	01/12/11
	FBP-038-02-04	ASTM D6164	01/12/11
	FBP-042-02-02	ASTM D6164	07/27/11
	FBP-042-02-01	ASTM D6164	07/26/11
	FBP-043-02-01	ASTM D6164	08/02/11
	FBP-043-02-02	ASTM D6164	08/02/11
	FBP-043-02-04	ASTM D6164	07/26/11
	FBP-042-02-02	ASTM D6164	07/26/11
	FBP-043-02-03 FBP-053-02-01	ASTM D6164 ASTM D6163	07/26/11 03/23/12
	FBP-059-02-01	ASTM D0103 ASTM D1876	03/23/12
	FBP-059-02-01 Rev 2	ASTM D1876 ASTM D903/D1876	09/30/13
	1 B1 -037-02-01 RCV 2	TAS 117/TAS 114	07/30/13
	FBP-071-02-01	TAS 117/ TAS 114	04/25/12
	FBP-106-02-01	TAS 114-3	04/23/12
	FBP-113-02-01	TAS 114	04/17/13
	FBP-114-02-01	TAS 114	04/19/13
	FBP-118-02-01	TAS 114	07/24/13
	FBR-124-02-01	TAS 114	08/02/13
	FBP-132-02-01	TAS 114	08/23/13
	FBP-133-02-01 Rev 3	TAS 114	09/03/13
	_		



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 6 of 60

EVIDENCE SUBMITTED:

Test Agency	Test Identifier	Description	<u>Date</u>
	FBP-133-02-02	TAS 114	08/27/13
	FBP-141-02-01	TAS 114	12/18/13
	FBP-142-02-01	TAS 114	08/28/13
	FBP-142-02-02 Rev 1	TAS 114	10/01/13



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 7 of 60

APPROVED ASSEMBLIES

Membrane Type: SBS/APP

Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank.

System Type A(1): Insulation adhered with approved adhesive; membrane fully adhered.

Thermal Barrier: Minimum ½" thick DensDeck, DensDeck Prime, or SECUROCK Gypsum-Fiber Roof Board

mechanically attached with Firestone Concrete Drive or Firestone Heavy-Duty fasteners

with Insulation Fastening Plate applied at a rate of 1 fastener per 2ft².

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	<u>Fastener</u> <u>Density/ft²</u>
ISO 95+GL Minimum $1^{-1}/_2$ " thick	N/A	N/A
(Optional) Middle Insulation Layer	<u>Insulation Fasteners</u> (Table 3)	<u>Fastener</u> Density/ft ²
ISO 95+GL Minimum $1-\frac{1}{2}$ " thick	N/A	N/A
Top Insulation Layer	<u>Insulation Fasteners</u> (Table 3)	<u>Fastener</u> Density/ft²
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum ¹ / ₄ " thick	N/A	N/A

Note: All Insulations shall be adhered to the thermal barrier using I.S.O. Twin Pack Insulation Adhesive (except SECUROCK), applied ½" to ¾" wide ribbons spaced 12" o.c. or I.S.O. Fix II or I.S.O. Stick applied in continuous ¾" to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One ply of BASEGARD SA, self-adhered with a 3" lap.

Ply Sheet: (Optional) One or more plies of Ply IV, Ply VI, SBS Poly Base, SBS Smooth, SBS Base, or

SBS Premium Base with hot asphalt adhesive applied within the EVT range and at a rate of

20-40 lbs./sq. with a 3" lap.

or

One or more plies of SBS Glass Torch Base or SBS Poly Torch Base heat welded with a 3"

lap.



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 8 of 60

One ply of SBS Glass FR Torch, SBS Glass FR Torch UltraWhite, SBS Torch, SBS Torch UltraWhite, SBS Premium Torch, SBS Premium Torch UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite, SBS Premium FR Torch, SBS Premium FR Torch UltraWhite, APP 180, APP 180 UltraWhite, APP 180 FR or APP 180 FR UltraWhite cap sheet torch adhered to the base sheet with a 3" lap.

Or

One ply of SBS Cap, SBS Cap UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS Premium, SBS Premium FR or SBS Premium FR UltraWhite cap sheet fully adhered to the base sheet with hot asphalt adhesive applied within the EVT range and at a rate of 20-40 lbs./sq. with a 3" lap.

Maximum Design

Pressure: -45 psf. (See General Limitation #9)



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 9 of 60 **Membrane Type:** SBS/APP

Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank.

System Type A(2): Insulation adhered with approved adhesive; membrane fully adhered.

Vapor Retarder: SBS Poly Torch or SBS Glass Torch Base torch adhered to the primed deck.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	<u>Fastener</u> <u>Density/ft²</u>
ISO 95+GL Minimum $1-\frac{1}{2}$ " thick	N/A	N/A
(Optional) Middle Insulation Layer	<u>Insulation Fasteners</u> (<u>Table 3)</u>	<u>Fastener</u> <u>Density/ft²</u>
ISO 95+GL Minimum 1- ¹ / ₂ " thick	N/A	N/A
Top Insulation Layer	<u>Insulation Fasteners</u> (<u>Table 3)</u>	<u>Fastener</u> <u>Density/ft²</u>
DensDeck Prime Minimum ¹ / ₄ " thick	N/A	N/A

Note: Concrete deck shall be primed with ASTM D-41 Primer. All Insulations shall be adhered to the vapor retarder using I.S.O. Twin Pack Insulation Adhesive, applied in ½" to ¾" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One ply of BASEGARD SA, self-adhered with a 3" lap.

Ply Sheet: (Optional) One or more plies of Ply IV, Ply VI, SBS Poly Base, SBS Smooth, SBS Base, or

SBS Premium Base with hot asphalt adhesive applied within the EVT range and at a rate of

20-40 lbs./sq. with a 3" lap.

or

One or more plies of SBS Glass Torch Base or SBS Poly Torch Base heat welded with a 3"

lap.

Membrane: One ply of SBS Glass FR Torch, SBS Glass FR Torch UltraWhite, SBS Torch, SBS Torch

UltraWhite, SBS Premium Torch, SBS Premium Torch UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite, SBS Premium FR Torch, SBS Premium FR Torch UltraWhite, APP 180, APP 180 UltraWhite, APP 180 FR or APP 180 FR UltraWhite cap sheet torch adhered to the

base sheet with a 3" lap.

Or

One ply of SBS Cap, SBS Cap UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS Premium, SBS Premium FR or SBS



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 10 of 60 Premium FR UltraWhite cap sheet fully adhered to the base sheet with hot asphalt adhesive applied within the EVT range and at a rate of 20-40 lbs./sq. with a 3" lap.

Maximum Design

Pressure: -82.5 psf. (See General Limitation #9)



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14

Page 11 of 60

Membrane Type: SBS/APP

Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank.

System Type A(3): Insulation adhered with approved adhesive; membrane fully adhered.

Vapor Retarder: BASEGARD SA base sheet is self-adhered to the primed concrete.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	<u>Insulation Fasteners</u> (<u>Table 3</u>)	<u>Fastener</u> <u>Density/ft²</u>
ISO 95+GL		
Minimum $1-\frac{1}{2}$ " thick	N/A	N/A
(Optional) Middle Insulation Layer	Insulation Fasteners	<u>Fastener</u>
	<u>(Table 3)</u>	Density/ft ²
ISO 95+GL		
Minimum $1-\frac{1}{2}$ " thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners	<u>Fastener</u>
	<u>(Table 3)</u>	Density/ft ²
DensDeck Prime		

Note: Concrete deck shall be primed with Firestone SA Primer. All Insulations shall be adhered to the vapor retarder using I.S.O. Twin Pack Insulation Adhesive, applied in continuous ½" to ¾" wide ribbons spaced 8" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One ply of BASEGARD SA, self-adhered with a 3" lap.

Ply Sheet: (Optional) One or more plies of Ply IV, Ply VI, SBS Poly Base, SBS Smooth, SBS Base, or

SBS Premium Base with hot asphalt adhesive applied within the EVT range and at a rate of

N/A

20-40 lbs./sq. with a 3" lap.

or

One or more plies of SBS Glass Torch Base or SBS Poly Torch Base heat welded with a 3"

lap.

Membrane: One ply of SBS Glass FR Torch, SBS Glass FR Torch UltraWhite, SBS Torch, SBS Torch

UltraWhite, SBS Premium Torch, SBS Premium Torch UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite, SBS Premium FR Torch, SBS Premium FR Torch UltraWhite, APP 180, APP 180 UltraWhite, APP 180 FR or APP 180 FR UltraWhite cap sheet torch adhered to the

base sheet with a 3" lap.

Or

One ply of SBS Cap, SBS Cap UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS Premium, SBS Premium FR or SBS



Minimum 1/4" thick

NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 12 of 60

N/A

Premium FR UltraWhite cap sheet fully adhered to the base sheet with hot asphalt adhesive applied within the EVT range and at a rate of 20-40 lbs./sq. with a 3" lap.

Maximum Design

Pressure: -82.5 psf. (See General Limitation #9)



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14

Page 13 of 60

SBS/APP **Membrane Type:**

Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank.

Insulation adhered with approved adhesive; membrane fully adhered. System Type A(4):

BASEGARD SA base sheet is self-adhered to the primed concrete. Vapor Retarder:

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	<u>Fastener</u> <u>Density/ft²</u>
ISO 95+GL Minimum $1-\frac{1}{2}$ " thick	N/A	N/A
(Optional) Middle Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft ²
ISO 95+GL Minimum $1-\frac{1}{2}$ " thick	N/A	N/A
Top Insulation Layer	<u>Insulation Fasteners</u> (Table 3)	<u>Fastener</u> <u>Density/ft²</u>

DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board

Minimum 1/4" thick N/A N/A

Note: Concrete deck shall be primed with SA Primer. All Insulations shall be adhered to the vapor retarder using I.S.O. Stick Insulation Adhesive, applied in continuous 3/4" to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One ply of BASEGARD SA, self-adhered with a 3" lap.

Ply Sheet: (Optional) One or more plies of Ply IV, Ply VI, SBS Poly Base, SBS Smooth, SBS Base, or

SBS Premium Base with hot asphalt adhesive applied within the EVT range and at a rate of

20-40 lbs./sq. with a 3" lap.

One or more plies of SBS Glass Torch Base or SBS Poly Torch Base heat welded with a 3"

lap.



NOA No.: 13-0522.06 **Expiration Date: 02/07/18** Approval Date: 02/27/14 Page 14 of 60

One ply of SBS Glass FR Torch, SBS Glass FR Torch UltraWhite, SBS Torch, SBS Torch UltraWhite, SBS Premium Torch, SBS Premium Torch UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite, SBS Premium FR Torch, SBS Premium FR Torch UltraWhite, APP 180, APP 180 UltraWhite, APP 180 FR or APP 180 FR UltraWhite cap sheet torch adhered to the base sheet with a 3" lap.

Oı

One ply of SBS Cap, SBS Cap UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS Premium, SBS Premium FR or SBS Premium FR UltraWhite cap sheet fully adhered to the base sheet with hot asphalt adhesive applied within the EVT range and at a rate of 20-40 lbs./sq. with a 3" lap.

Maximum Design

Pressure: -82.5 psf. (See General Limitation #9)



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14

Page 15 of 60

Membrane Type: SBS

Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank.

System Type A(5): Insulation adhered with approved adhesive; membrane fully adhered.

Vapor Retarder: SBS Poly Torch or SBS Glass Torch Base torch adhered to the primed deck.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	<u>Fastener</u> <u>Density/ft²</u>
ISO 95+GL Minimum 1- ¹ / ₂ " thick	N/A	N/A
(Optional) Middle Insulation Layer	Insulation Fasteners (Table 3)	<u>Fastener</u> <u>Density/ft²</u>
ISO 95+GL Minimum 1- ¹ / ₂ " thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	<u>Fastener</u> <u>Density/ft²</u>
DensDeck Prime Minimum ¹ / ₂ " thick	N/A	N/A

Note: Concrete deck shall be primed with ASTM D-41 primer, roller applied at a rate of $\frac{3}{4}$ to 1 gal/square (0.3 to 0.4 L/m²). Insulation shall be adhered using I.S.O. Twin Pack Insulation Adhesive, applied in $\frac{1}{2}$ " to $\frac{3}{4}$ " wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One ply of BASEGARD SA, self-adhered with a 3" lap.

Ply Sheet: (Optional) One or more plies of Ply IV, Ply VI, SBS Poly Base, SBS Smooth, SBS Base, or

SBS Premium Base with hot asphalt adhesive applied within the EVT range and at a rate of

20-40 lbs./sq. with a 3" lap.

or

One or more plies of SBS Glass Torch Base or SBS Poly Torch Base heat welded with a 3"

lap.



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 16 of 60

One ply of SBS Glass FR Torch, SBS Glass FR Torch UltraWhite, SBS Torch, SBS Torch UltraWhite, SBS Premium Torch, SBS Premium Torch UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite, SBS Premium FR Torch, SBS Premium FR Torch UltraWhite, APP 180, APP 180 UltraWhite, APP 180 FR or APP 180 FR UltraWhite cap sheet torch adhered to the base sheet with a 3" lap.

One ply of SBS Cap, SBS Cap UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS Premium, SBS Premium FR or SBS Premium FR UltraWhite cap sheet fully adhered to the base sheet with hot asphalt adhesive applied within the EVT range and at a rate of 20-40 lbs./sq. with a 3" lap.

Maximum Design

Pressure: -82.5 psf. (See General Limitation #9)



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14

Page 17 of 60

SBS/APP **Membrane Type:**

Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank.

Insulation adhered with approved adhesive; membrane fully adhered. **System Type A(6):**

Vapor Retarder: BASEGARD SA base sheet is self-adhered to the primed concrete.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	<u>Fastener</u> <u>Density/ft²</u>
ISO 95+GL Minimum 1- ¹ / ₂ " thick	N/A	N/A
(Optional) Middle Insulation Layer	<u>Insulation Fasteners</u> (Table 3)	<u>Fastener</u> <u>Density/ft²</u>
ISO 95+GL Minimum 1- ¹ / ₂ " thick	N/A	N/A
Top Insulation Layer	<u>Insulation Fasteners</u> (<u>Table 3)</u>	<u>Fastener</u> <u>Density/ft²</u>
ISOGARD HD Minimum ¹ / ₄ " thick	N/A	N/A

Note: Concrete deck shall be primed with SA Primer, roller applied at a rate of 200 ft²/gallon (4.9 m²/L) prior to application of vapor retarder. All Insulation shall be adhered to the vapor retarder using I.S.O. Stick, applied in continuous 3/4" to 1" wide ribbons spaced 12" o.c. or I.S.O. Twin Pack Insulation Adhesive (except DensDeck Prime and SECUROCK) applied in continuous ½" to ¾" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

One ply of BASEGARD SA, self-adhered with a 3" lap. **Base Sheet:**

Ply Sheet: (Optional) One or more plies of Ply IV, Ply VI, SBS Poly Base, SBS Smooth, SBS Base, or

SBS Premium Base with hot asphalt adhesive applied within the EVT range and at a rate of

20-40 lbs./sq. with a 3" lap.

One or more plies of SBS Glass Torch Base or SBS Poly Torch Base heat welded with a 3"

lap.



NOA No.: 13-0522.06 **Expiration Date: 02/07/18** Approval Date: 02/27/14 Page 18 of 60

One ply of SBS Glass FR Torch, SBS Glass FR Torch UltraWhite, SBS Torch, SBS Torch UltraWhite, SBS Premium Torch, SBS Premium Torch UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite, SBS Premium FR Torch, SBS Premium FR Torch UltraWhite, APP 180, APP 180 UltraWhite, APP 180 FR or APP 180 FR UltraWhite cap sheet torch adhered to the base sheet with a 3" lap.

Or

One ply of SBS Cap, SBS Cap UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS Premium, SBS Premium FR or SBS Premium FR UltraWhite cap sheet fully adhered to the base sheet with hot asphalt adhesive applied within the EVT range and at a rate of 20-40 lbs./sq. with a 3" lap.

Maximum Design

Pressure: -90 psf. (See General Limitation #9)



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 19 of 60 **Membrane Type:** SBS/APP

Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank.

System Type A(7): Insulation adhered with approved adhesive; membrane fully adhered.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	<u>Insulation Fasteners</u> (Table 3)	<u>Fastener</u> Density/ft ²
ISO 95+GL Minimum 1- ¹ / ₂ " thick	N/A	N/A
Top Insulation Layer	<u>Insulation Fasteners</u> (Table 3)	<u>Fastener</u> Density/ft²

ISO 95+GL (tapered)

Minimum $\frac{1}{2}$ " thick with a $\frac{1}{4}$ "taper N/A N/A

Note: Concrete deck shall be primed with ASTM D-41 primer, roller applied at a rate of ¾ to 1 gal/square (0.3 to 0.4 L/m²). All Insulations shall be adhered using I.S.O. Fix II applied in ¾" wide ribbons spaced 8" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One ply of BASEGARD SA, self-adhered with a 3" lap.

Ply Sheet: (Optional) One or more plies of Ply IV, Ply VI, SBS Poly Base, SBS Smooth, SBS Base, or

SBS Premium Base with hot asphalt adhesive applied within the EVT range and at a rate of

20-40 lbs./sq. with a 3" lap.

or

One or more plies of SBS Glass Torch Base or SBS Poly Torch Base heat welded with a 3"

lan.

Membrane: One ply of SBS Glass FR Torch, SBS Glass FR Torch UltraWhite, SBS Torch, SBS Torch

UltraWhite, SBS Premium Torch, SBS Premium Torch UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite, SBS Premium FR Torch, SBS Premium FR Torch UltraWhite, APP 180, APP 180 UltraWhite, APP 180 FR, APP 180 FR UltraWhite, APP Premium FR, or APP

Premium FR UltraWhite cap sheet torch adhered to the base sheet with a 3" lap.

Or

One ply of SBS Cap, SBS Cap UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS Premium, SBS Premium FR or SBS Premium FR UltraWhite cap sheet fully adhered to the base sheet with hot asphalt adhesive

applied within the EVT range and at a rate of 20-40 lbs./sq. with a 3" lap.

Maximum Design

Pressure: -112.5 psf. (See General Limitation #9)



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 20 of 60 **Membrane Type:** SBS/APP

Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank.

System Type A(8): Insulation adhered with approved adhesive; membrane fully adhered.

Vapor Retarder: BASEGARD SA base sheet is self-adhered to primed concrete deck.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft ²
ISO 95+GL Minimum $1-\frac{1}{2}$ " thick	N/A	N/A
(Optional) Middle Insulation Layer	Insulation Fasteners (Table 3)	<u>Fastener</u> <u>Density/ft²</u>
ISO 95+GL Minimum $1^{-1}/_2$ " thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	<u>Fastener</u> <u>Density/ft²</u>
ISOGARD HD Minimum ¹ / ₂ " thick	N/A	N/A

Note: Concrete deck shall be primed with SA Primer, roller applied at a rate of 200 ft²/gallon (4.9 m²/L). All Insulations shall be adhered to the vapor retarder using I.S.O. Twin Pack Insulation Adhesive, applied in continuous ½" to ¾" wide ribbons spaced 8" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One ply of BASEGARD SA, self-adhered with a 3" lap.

Ply Sheet: (Optional) One or more plies of Ply IV, Ply VI, SBS Poly Base, SBS Smooth, SBS Base, or

SBS Premium Base with hot asphalt adhesive applied within the EVT range and at a rate of

20-40 lbs./sq. with a 3" lap.

or

One or more plies of SBS Glass Torch Base or SBS Poly Torch Base heat welded with a 3"

lap.



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 21 of 60

One ply of SBS Glass FR Torch, SBS Glass FR Torch UltraWhite, SBS Torch, SBS Torch UltraWhite, SBS Premium Torch, SBS Premium Torch UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite, SBS Premium FR Torch, SBS Premium FR Torch UltraWhite, APP 180, APP 180 UltraWhite, APP 180 FR or APP 180 FR UltraWhite cap sheet torch adhered to the base sheet with a 3" lap.

Or

One ply of SBS Cap, SBS Cap UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS Premium, SBS Premium FR or SBS Premium FR UltraWhite cap sheet fully adhered to the base sheet with hot asphalt adhesive applied within the EVT range and at a rate of 20-40 lbs./sq. with a 3" lap.

Maximum Design

Pressure: -112.5 psf. (See General Limitation #9)



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14

Page 22 of 60

SBS/APP **Membrane Type:**

Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank.

Insulation adhered with approved adhesive; membrane fully adhered. System Type A(9):

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft ²
RESISTA Minimum 1- ¹ / ₂ " thick	N/A	N/A
(Optional) Middle Insulation Layer	Insulation Fasteners (Table 3)	<u>Fastener</u> <u>Density/ft²</u>
RESISTA Minimum 1- ¹ / ₂ " thick	N/A	N/A
(Optional) Top Insulation Layer	Insulation Fasteners (Table 3)	<u>Fastener</u> <u>Density/ft</u> ²
RESISTA Minimum ¹ / ₂ " thick	N/A	N/A

Note: All Insulations shall be adhered with I.S.O. Twin Pack Insulation Adhesive or I.S.O. Stick applied in continuous 1/2" to 3/4" wide ribbons spaced 12" o.c. or I.S.O. Fix II applied in continuous 3/4" to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One ply of BASEGARD SA, self-adhered with a 3" lap.

Ply Sheet: (Optional) One or more plies of Ply IV, Ply VI, SBS Poly Base, SBS Smooth, SBS Base, or

SBS Premium Base with hot asphalt adhesive applied within the EVT range and at a rate of

20-40 lbs./sq. with a 3" lap.

One or more plies of SBS Glass Torch Base or SBS Poly Torch Base heat welded with a 3"

lap.



NOA No.: 13-0522.06 **Expiration Date: 02/07/18** Approval Date: 02/27/14

Page 23 of 60

One ply of SBS Glass FR Torch, SBS Glass FR Torch UltraWhite, SBS Torch, SBS Torch UltraWhite, SBS Premium Torch, SBS Premium Torch UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite, SBS Premium FR Torch, SBS Premium FR Torch UltraWhite, APP 180, APP 180 UltraWhite, APP 180 FR, APP 180 FR UltraWhite, APP Premium FR, or APP Premium FR UltraWhite cap sheet torch adhered to the base sheet with a 3" lap.

Or

One ply of SBS Cap, SBS Cap UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS Premium, SBS Premium FR or SBS Premium FR UltraWhite cap sheet fully adhered to the base sheet with hot asphalt adhesive applied within the EVT range and at a rate of 20-40 lbs./sq. with a 3" lap.

Maximum Design

Pressure: -112.5 psf. (See General Limitation #9)



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 24 of 60 **Membrane Type:** APP

Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank.

System Type A(10): Insulation adhered with approved adhesive; membrane fully adhered.

All General and System Limitations apply.

One or more layers of any of the following insulations.

<u>eners </u>
Density/ft ²
L

ISO 95+GL

Minimum $1-\frac{1}{2}$ " thick N/A

(Optional) Middle Insulation Layer Insulation Fasteners (Table 3) Fastener Density/ft²

ISO 95+GL

Minimum $1-\frac{1}{2}$ " thick N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Pensity/ft²

ISO 95+GL (tapered)

Minimum $\frac{1}{2}$ " thick with a $\frac{1}{4}$ " taper N/A

Note: All Insulations shall be adhered using I.S.O. Twin Pack Insulation Adhesive applied in continuous ½" to ¾" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One ply of BASEGARD SA, self-adhered with a 3" lap.

Ply Sheet: None

Membrane: One ply of APP 180, APP 180 UltraWhite, APP 180 FR, APP 180 FR UltraWhite cap sheet

torch adhered to the base sheet with a 3" lap.

Maximum Design

Pressure: -112.5 psf. (See General Limitation #9)



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 25 of 60 **Membrane Type:** SBS/APP

Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank.

System Type A(11): Insulation adhered with approved adhesive; membrane fully adhered.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	<u>Insulation Fasteners</u>	<u>Fastener</u>
	<u>(Table 3)</u>	Density/ft ²

ISO 95+GL

Minimum $1-\frac{1}{2}$ " thick N/A

(Optional) Middle Insulation Layer Insulation Fasteners (Table 3) Fastener Density/ft²

ISO 95+GL

Minimum $1-\frac{1}{2}$ " thick N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft²

ISOGARD HD, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board

Minimum $\frac{1}{2}$ " thick N/A N/A

Note: All Insulations shall be adhered using I.S.O. Stick, applied in continuous ¾" to 1" wide ribbons spaced 12" o.c. or with I.S.O. Twin Pack Insulation Adhesive (except DensDeck Prime and SECUROCK), applied in ½" to ¾" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One ply of BASEGARD SA, self-adhered with a 3" lap.

Ply Sheet: None

Membrane: One ply of SBS Torch, SBS Torch UltraWhite, SBS Premium Torch, SBS Premium Torch

UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite, SBS Premium FR Torch, SBS Premium FR Torch UltraWhite, APP 180, APP 180 UltraWhite, APP 180 FR or APP 180

FR UltraWhite cap sheet torch adhered to the base sheet with a 3" lap.

Or

One ply of SBS Cap, SBS Cap UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Glass, SBS Premium, SBS Premium FR or SBS Premium FR UltraWhite cap sheet fully adhered to the base sheet with hot asphalt adhesive applied within the EVT range and at a

rate of 20-40 lbs./sq with a 3" lap.

Maximum Design -187.5 psf.; Asphalt applied membranes (See General Limitation #9)

Pressure: -217.5 psf.; Torch applied membranes (See General Limitation #9)



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 26 of 60 **Membrane Type:** SBS/APP

Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank.

System Type A(12): Insulation adhered with approved adhesive; membrane fully adhered.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Insulation Layer	Insulation Fasteners	<u>Fastener</u>
	<u>(Table 3)</u>	Density/ft²
ISOGARD HD, SECUROCK Gypsum-Fiber Roof Board		
Minimum ¹ / ₂ " thick	N/A	N/A

Note: All Insulations shall be adhered using I.S.O. Fix II applied in 3/4" to 1" wide ribbons spaced 4" o.c. or I.S.O. Stick applied in continuous 3/4" to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One ply of BASEGARD SA, self-adhered with a 3" lap.

Ply Sheet: None

Membrane: One ply of SBS Torch, SBS Torch UltraWhite, SBS Premium Torch, SBS Premium Torch

UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite, SBS Premium FR Torch, SBS Premium FR Torch UltraWhite, APP 180, APP 180 UltraWhite, APP 180 FR or APP 180

FR UltraWhite cap sheet torch adhered to the base sheet with a 3" lap.

Or

One ply of SBS Cap, SBS Cap UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Glass, SBS Premium, SBS Premium FR or SBS Premium FR UltraWhite cap sheet fully adhered to the base sheet with hot asphalt adhesive applied within the EVT range and at a

rate of 20-40 lbs./sq. with a 3" lap

Maximum Design
-187.5 psf.; Asphalt applied membranes (See General Limitation #9)
-217.5 psf.; Torch applied membranes (See General Limitation #9)



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 27 of 60 **Membrane Type:** SBS

Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank.

System Type A(13): Insulation adhered with approved adhesive; membrane fully adhered.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Insulation LayerInsulation FastenersFastener(Table 3)Density/ft²

ISO 95+GL

Minimum 1.5" thick N/A N/A

Note: All Insulations shall be adhered using I.S.O. Fix II applied in 3/4" wide ribbons spaced 8" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One ply of BASEGARD SA, self-adhered with a 3" lap.

Ply Sheet: None

Membrane: One ply of SBS Torch, SBS Torch UltraWhite, SBS Premium Torch, SBS Premium Torch

UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite cap sheet torch adhered to the base

sheet with a 3" lap.

Or

One ply of SBS Cap, SBS Cap UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Glass, SBS Premium, SBS Premium FR or SBS Premium FR UltraWhite cap sheet fully adhered to the base sheet with hot asphalt adhesive applied within the EVT range and at a

rate of 20-40 lbs./sq. with a 3" lap

Maximum Design -210 psf.; Torch applied membranes (See General Limitation #9)

Pressure: -247.5 psf.; Asphalt applied membranes (See General Limitation #9)



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14

Page 28 of 60

Membrane Type: SBS/APP

Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank.

System Type A(14): Insulation adhered with approved adhesive; membrane fully adhered.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Insulation Layer	Insulation Fasteners	Fastener
	<u>(Table 3)</u>	Density/ft ²
SECUROCK Gypsum-Fiber Roof Board		
Minimum 0.25" thick	N/A	N/A

Note: Insulation shall be adhered with I.S.O. Twin Pack Insulation Adhesive applied in ½" to ¾" wide ribbons spaced 12" o.c., I.S.O. Fix II or I.S.O. Stick applied in ¾" to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Base Sheet: One ply of BASEGARD SA, self-adhered while maintaining minimum 3" side laps.

Ply Sheet: (Optional) One or more plies of SBS Base, Ply IV, Ply VI, SBS Poly Base, SBS Smooth or

SBS Premium Base fully adhered with hot asphalt adhesive applied within the EVT range

and at a rate of 25-30 lbs./sq. while maintaining minimum 3" side laps.

Or

One or more plies of SBS Glass Torch Base or SBS Poly Torch Base heat welded. while

maintaining minimum 3" side laps.

Membrane: One ply of SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS FR Cap, SBS FR Cap

UltraWhite, SBS Cap, SBS Cap UltraWhite, SBS Premium, SBS Premium FR, or SBS Premium FR UltraWhite fully bonded with hot asphalt adhesive applied within the EVT

range and at a rate of 25-30 lbs./sq. while maintaining minimum 3" side laps.

Or

One ply of SBS Glass FR Torch, SBS Glass FR Torch UltraWhite, SBS Torch, SBS Torch UltraWhite, SBS Premium Torch, SBS Premium Torch UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite SBS Premium FR Torch, SBS Premium FR Torch UltraWhite heat

welded while maintaining minimum 3" side laps.

Maximum Design

Pressure: -227.5 psf. (See General Limitation #9)



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 29 of 60 **Membrane Type:** SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type B(1): Base layer of insulation mechanically attached, top layer adhered with approved adhesive.

Membrane fully adhered.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners	Fastener
	<u>(Table 3)</u>	Density/ft²
ISO 95+ GL		
Minimum 2.0" thick	1 or 2 with 3	$1:1 \text{ ft}^2$

Note: Base layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Top Insulation Layer	Insulation Fasteners (Table 3)	<u>Fastener</u> <u>Density/ft²</u>
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board		
Minimum ½" thick	N/A	N/A

Note: Top layer of insulation shall be adhered with I.S.O. Twin Pack Insulation Adhesive (except SECUROCK) applied in ½" to ¾" wide ribbons spaced 4" o.c. or with I.S.O. Fix II (except SECUROCK) or I.S.O. Stick applied in ¾" to 1" wide ribbons spaced 4" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Base Sheet: One ply of BASEGARD SA, self-adhered with a 3.5" lap.

Ply Sheet: (Optional) One or more plies of Ply IV, Ply VI, SBS Poly Base, SBS Smooth, SBS Base, or

SBS Premium Base with hot asphalt adhesive applied within the EVT range and at a rate of

20-40 lbs./sq. with a 3.5" lap.

or

One or more plies of SBS Glass Torch Base or SBS Poly Torch Base heat welded with a 3.5"

lap.



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 30 of 60

One ply of SBS Cap, SBS Cap UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Premium, SBS Premium FR or SBS Premium FR UltraWhite, SBS Glass, cap sheet fully adhered to the base sheet with hot asphalt adhesive applied within the EVT range and at a rate of 20-40 lbs./sq. Mininum 3.5" side and end laps are sealed with hot asphalt.

Or

One ply of SBS Glass FR Torch, SBS Glass FR Torch UltraWhite, SBS Torch, SBS Torch UltraWhite, SBS Premium Torch, SBS Premium Torch UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite, SBS Premium FR Torch, SBS Premium FR Torch UltraWhite, APP 180, APP 180 UltraWhite, APP 180 FR or APP 180 FR UltraWhite cap sheet torch adhered to the

base sheet with a 3.5" lap.

Maximum Design

Pressure: -67.5 psf. (See General Limitation #7)



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14

Page 31 of 60

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type B(2): Base layer of insulation mechanically attached, top layer adhered with approved adhesive.

Membrane fully adhered.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners	<u>Fastener</u>
	<u>(Table 3)</u>	Density/ft²
ISO 95+ GL		
Minimum 2.0" thick	1 or 2 with 3	$1:1 \text{ ft}^2$

Note: Base layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Top Insulation Layer	Insulation Fasteners	Fastener
	<u>(Table 3)</u>	Density/ft ²
ISOGARD HD, DensDeck Prime, SECUROCK Gyps	um-Fiber Roof Board	
Minimum ½" thick	N/A	N/A

Note: Top layer of insulation shall be adhered with I.S.O. Twin Pack Insulation (except DensDeck Prime and SECUROCK) Adhesive applied in ½" to ¾" wide ribbons spaced 4" o.c. or with I.S.O. Fix II (except DensDeck and SECUROCK) or I.S.O. Stick applied in ¾" to 1" wide ribbons spaced 4" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Base Sheet: One ply of BASEGARD SA, self-adhered with a 3.5" lap.

Ply Sheet: (Optional) One or more plies of Ply IV, Ply VI, SBS Poly Base, SBS Smooth, SBS Base, or

SBS Premium Base with hot asphalt adhesive applied within the EVT range and at a rate of

20-40 lbs./sq. with a 3.5" lap.

or

One or more plies of SBS Glass Torch Base or SBS Poly Torch Base heat welded with a 3.5"

lap.



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 32 of 60

One ply of SBS Cap, SBS Cap UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Premium, SBS Premium FR or SBS Premium FR UltraWhite, SBS Glass, SBS Glass FR, or SBS Glass FR UltraWhite cap sheet fully adhered to the base sheet with hot asphalt adhesive applied within the EVT range and at a rate of 20-40 lbs./sq. Mininum 3.5" side and end laps are sealed with hot asphalt.

One ply of SBS Glass FR Torch, SBS Glass FR Torch UltraWhite, SBS Torch, SBS Torch UltraWhite, SBS Premium Torch, SBS Premium Torch UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite, SBS Premium FR Torch, SBS Premium FR Torch UltraWhite, APP 180, APP 180 UltraWhite, APP 180 FR or APP 180 FR UltraWhite cap sheet torch adhered to the base sheet with a 3.5" lap.

Maximum Design

Pressure: -105 psf. (See General Limitation #7)



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14

Page 33 of 60

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type B(3): Base layer of insulation mechanically attached, top layer adhered with approved adhesive.

Membrane fully adhered.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	<u>Insulation Fasteners</u>	<u>Fastener</u>
	<u>(Table 3)</u>	Density/ft ²
ISO 95+GL, RESISTA		
Minimum 1½" thick	1 or 2 with 3	$1:1.6 \text{ ft}^2$

Note: Base layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Top Insulation Layer	Insulation Fasteners	Fastener
	<u>(Table 3)</u>	<u>Density/ft²</u>
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board		
Minimum ½" thick	N/A	N/A

Note: Top layer of insulation shall be adhered with I.S.O. Twin Pack Insulation Adhesive applied in 1/2" to 3/4" wide ribbons spaced 6" o.c. (not with SECUROCK) or with I.S.O. Fix II or I.S.O. Stick applied in 3/4" to 1" wide ribbons spaced 6" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Base Sheet: One ply of BASEGARD SA, self-adhered while maintaining minimum 3" side laps.

(Optional) One or more plies of SBS Base, Ply IV, Ply VI, SBS Poly Base, SBS Smooth or **Ply Sheet:**

SBS Premium Base fully adhered with hot asphalt adhesive applied within the EVT range and

at a rate of 25-30 lbs./sq. while maintaining minimum 3¹/₄" side laps.

One or more plies of SBS Glass Torch Base or SBS Poly Torch Base heat welded. while

maintaining minimum 3½" side laps.



NOA No.: 13-0522.06 **Expiration Date: 02/07/18** Approval Date: 02/27/14

Page 34 of 60

One ply of SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Cap, SBS Cap UltraWhite, SBS Premium, SBS Premium FR, or SBS Premium FR UltraWhite fully bonded with hot asphalt adhesive applied within the EVT range and at a rate of 25-30 lbs./sq. while maintaining minimum 3½" side laps.

Or

One ply of SBS Glass FR Torch, SBS Glass FR Torch UltraWhite, SBS Torch, SBS Torch UltraWhite, SBS Premium Torch, SBS Premium Torch UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite SBS Premium FR Torch, SBS Premium FR Torch UltraWhite heat welded while maintaining minimum 3½" side laps.

Maximum Design

Pressure: -52.5 psf. (See General Limitation #7)



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14

Page 35 of 60

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type B(4): Base layer of insulation mechanically attached, top layer adhered with approved adhesive.

Membrane fully adhered.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	Insulation Fasteners	<u>Fastener</u> <u>Density/ft²</u>
	<u>(Table 3)</u>	
ISO 95+GL		
Minimum 2" thick	1 or 2 with 3	$1:1.6 \text{ ft}^2$

Note: Base layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Middle Insulation Layer	<u>Insulation Fasteners</u> (Table 3)	<u>Fastener</u> <u>Density/ft²</u>
ISO 95+GL Minimum ½" thick	N/A	N/A
Top Insulation Layer	<u>Insulation Fasteners</u> (Table 3)	<u>Fastener</u> <u>Density/ft²</u>
SECUROCK Gypsum-Fiber Roof Board Minimum ½" thick	N/A	N/A

Note: Middle amd Top insulation layers shall be adhered with I.S.O. Twin Pack Insulation Adhesive applied in ½" to ¾" wide ribbons spaced 6" o.c. (not with SECUROCK) or with I.S.O. Fix II or I.S.O. Stick applied in ¾" to 1" wide ribbons spaced 6" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Base Sheet: One ply of BASEGARD SA, self-adhered while maintaining minimum 3" side laps.

Ply Sheet: (Optional) One or more plies of SBS Base, Ply IV, Ply VI, SBS Poly Base, SBS Smooth or

SBS Premium Base fully adhered with hot asphalt adhesive applied within the EVT range and

at a rate of 25-30 lbs./sq. while maintaining minimum 3" side laps

Or

One or more plies of SBS Glass Torch Base or SBS Poly Torch Base heat welded. while

maintaining minimum 3" side laps.



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 36 of 60 Membrane:

One ply of SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Cap, SBS Cap UltraWhite, SBS Premium, SBS Premium FR, or SBS Premium FR UltraWhite fully bonded with hot asphalt adhesive applied within the EVT range and at a rate of 25-30 lbs./sq. while maintaining minimum 3" side laps.

Or

One ply of SBS Glass FR Torch, SBS Glass FR Torch UltraWhite, SBS Torch, SBS Torch UltraWhite, SBS Premium Torch, SBS Premium Torch UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite SBS Premium FR Torch, SBS Premium FR Torch UltraWhite while maintaining 3" side laps.

Maximum Design

Pressure: -67.5 psf. (See General Limitation #7)



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 37 of 60

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type C(1): Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply.

Base Insulation LayerInsulation FastenersFastener(Table 3)Density/ft²

ISO 95+GL

Minimum: $1-\frac{1}{2}$ " thick N/A

Top Insulation Layer Insulation Fasteners (Table 3) Fastener Density/ft²

DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board

Minimum: $\frac{1}{4}$ " thick 1 or 2 with 3 1:2 ft²

Note: Top Layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Base Sheet: One ply of BASEGARD SA, self-adhered with a 3" lap.

Ply Sheet: (Optional) One or more plies of Ply IV, Ply VI, SBS Poly Base, SBS Smooth, SBS Base, or

SBS Premium Base with hot asphalt adhesive applied within the EVT range and at a rate of

20-40 lbs./sq. with a 3" lap.

or

One or more plies of SBS Glass Torch Base or SBS Poly Torch Base heat welded with a 3"

lap.

Membrane: One ply of SBS Glass FR Torch, SBS Glass FR Torch UltraWhite, SBS Torch, SBS Torch

UltraWhite, SBS Premium Torch, SBS Premium Torch UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite, SBS Premium FR Torch, SBS Premium FR Torch UltraWhite, APP 180, APP 180 UltraWhite, APP 180 FR or APP 180 FR UltraWhite cap sheet torch adhered to the

base sheet with a 3" lap.

Or

One ply of SBS Cap, SBS Cap UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS Premium, SBS Premium FR or SBS Premium FR UltraWhite cap sheet fully adhered to the base sheet with hot asphalt adhesive

applied within the EVT range and at a rate of 20-40 lbs./sq. with a 3" lap.

Maximum Design

Pressure: -45 psf. (See General Limitation #9)



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 38 of 60

SBS/APP **Membrane Type:**

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type C(2): Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply.

Base Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft²

ISO 95+GL

Minimum: $1-\frac{1}{2}$ " thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft²

DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board

Minimum: 1/2" thick 1:1.33 ft² 1 or 2 with 3

Note: Top Layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Base Sheet: One ply of BASEGARD SA, self-adhered with a 3" lap.

(Optional) One or more plies of Ply IV, Ply VI, SBS Poly Base, SBS Smooth, SBS Base, or **Ply Sheet:**

SBS Premium Base with hot asphalt adhesive applied within the EVT range and at a rate of

20-40 lbs./sq. with a 3" lap.

One or more plies of SBS Glass Torch Base or SBS Poly Torch Base heat welded with a 3"

lap.

Membrane: One ply of SBS Glass FR Torch, SBS Glass FR Torch UltraWhite, SBS Torch, SBS Torch

> UltraWhite, SBS Premium Torch, SBS Premium Torch UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite, SBS Premium FR Torch, SBS Premium FR Torch UltraWhite, APP 180, APP 180 UltraWhite, APP 180 FR or APP 180 FR UltraWhite cap sheet torch adhered to the

base sheet with a 3" lap.

Or

One ply of SBS Cap, SBS Cap UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS Premium, SBS Premium FR or SBS Premium FR UltraWhite cap sheet fully adhered to the base sheet with hot asphalt adhesive

applied within the EVT range and at a rate of 20-40 lbs./sq. with a 3" lap.

Maximum Design

Pressure: -45 psf. (See General Limitation #7)



NOA No.: 13-0522.06 **Expiration Date: 02/07/18** Approval Date: 02/27/14

Page 39 of 60

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type C(3): Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply.

Insulation LayerInsulation Fasteners
(Table 3)Fastener
Density/ft²ISO 95+ GL, RESISTA1 or 2 with 31:2 ft²

Note: All Insulation shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Base Sheet: One ply of BASEGARD SA, self-adhered with a 3" lap.

Ply Sheet: (Optional) One or more plies of Ply IV, Ply VI, SBS Poly Base, SBS Smooth, SBS Base, or

SBS Premium Base with hot asphalt adhesive applied within the EVT range and at a rate of

20-40 lbs./sq. with a 3" lap.

or

One or more plies of SBS Glass Torch Base or SBS Poly Torch Base heat welded with a 3"

lap.

Membrane: One ply of SBS Glass FR Torch, SBS Glass FR Torch UltraWhite, SBS Torch, SBS Torch

UltraWhite, SBS Premium Torch, SBS Premium Torch UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite, SBS Premium FR Torch, SBS Premium FR Torch UltraWhite, APP 180, APP 180 UltraWhite, APP 180 FR or APP 180 FR UltraWhite cap sheet torch adhered to the

base sheet with a 3" lap.

Or

One ply of SBS Cap, SBS Cap UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS Premium, SBS Premium FR or SBS Premium FR UltraWhite cap sheet fully adhered to the base sheet with hot asphalt adhesive

applied within the EVT range and at a rate of 20-40 lbs./sq. with a 3" lap.

Maximum Design

Pressure: -45 psf. (See General Limitation #9)



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 40 of 60

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type C(4): Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply.

Insulation LayerInsulation Fasteners
(Table 3)Fastener
Density/ft²ISO 95+ GL, RESISTA1 or 2 with 3 $1:2.67 \text{ ft}^2$

Note: All Insulation shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Base Sheet: One ply of BASEGARD SA, self-adhered with a 3" lap.

Ply Sheet: (Optional) One or more plies of Ply IV, Ply VI, SBS Poly Base, SBS Smooth, SBS Base, or

SBS Premium Base with hot asphalt adhesive applied within the EVT range and at a rate of

20-40 lbs./sq. with a 3" lap.

or

One or more plies of SBS Glass Torch Base or SBS Poly Torch Base heat welded with a 3"

lap.

Membrane: One ply of SBS Glass FR Torch, SBS Glass FR Torch UltraWhite, SBS Torch, SBS Torch

UltraWhite, SBS Premium Torch, SBS Premium Torch UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite, SBS Premium FR Torch, SBS Premium FR Torch UltraWhite, APP 180, APP 180 UltraWhite, APP 180 FR or APP 180 FR UltraWhite cap sheet torch adhered to the

base sheet with a 3" lap.

Or

One ply of SBS Cap, SBS Cap UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS Premium, SBS Premium FR or SBS Premium FR UltraWhite cap sheet fully adhered to the base sheet with hot asphalt adhesive

applied within the EVT range and at a rate of 20-40 lbs./sq. with a 3" lap.

Maximum Design

Pressure: -45 psf. (See General Limitation #9)



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 41 of 60

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type C(5): Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply.

Insulation LayerInsulation Fasteners
(Table 3)Fastener
Density/ft²ISO 95+ GL, RESISTA1 or 2 with 31:4 ft²

Note: All Insulation shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Base Sheet: One ply of BASEGARD SA, self-adhered with a 3" lap.

Ply Sheet: (Optional) One or more plies of Ply IV, Ply VI, SBS Poly Base, SBS Smooth, SBS Base, or

SBS Premium Base with hot asphalt adhesive applied within the EVT range and at a rate of

20-40 lbs./sq. with a 3" lap.

or

One or more plies of SBS Glass Torch Base or SBS Poly Torch Base heat welded with a 3"

lap.

Membrane: One ply of SBS Glass FR Torch, SBS Glass FR Torch UltraWhite, SBS Torch, SBS Torch

UltraWhite, SBS Premium Torch, SBS Premium Torch UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite, SBS Premium FR Torch, SBS Premium FR Torch UltraWhite, APP 180, APP 180 UltraWhite, APP 180 FR or APP 180 FR UltraWhite cap sheet torch adhered to the

base sheet with a 3" lap.

Or

One ply of SBS Cap, SBS Cap UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS Premium, SBS Premium FR or SBS Premium FR UltraWhite cap sheet fully adhered to the base sheet with hot asphalt adhesive

applied within the EVT range and at a rate of 20-40 lbs./sq. with a 3" lap.

Maximum Design

Pressure: -45 psf. (See General Limitation #9)



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 42 of 60

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type C(6): Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply.

 Insulation Layer
 Insulation Fasteners (Table 3)
 Fastener Density/ft²

 RESISTA

Minimum $1-\frac{1}{2}$ " thick 1 or 2 with 3 1:2.7 ft²

Note: All Insulation shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Base Sheet: One ply of BASEGARD SA, self-adhered with a 3" lap.

Ply Sheet: (Optional) One or more plies of Ply IV, Ply VI, SBS Poly Base, SBS Smooth, SBS Base, or

SBS Premium Base with hot asphalt adhesive applied within the EVT range and at a rate of

20-40 lbs./sq. with a 3" lap.

or

One or more plies of SBS Glass Torch Base or SBS Poly Torch Base heat welded with a 3"

lap.

Membrane: One ply of SBS Glass FR Torch, SBS Glass FR Torch UltraWhite, SBS Torch

UltraWhite, SBS Premium Torch, SBS Premium Torch UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite, SBS Premium FR Torch, SBS Premium FR Torch UltraWhite, APP 180, APP 180 UltraWhite, APP 180 FR or APP 180 FR UltraWhite cap sheet torch adhered to the

base sheet with a 3" lap.

Or

One ply of SBS Cap, SBS Cap UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS Premium, SBS Premium FR or SBS Premium FR UltraWhite cap sheet fully adhered to the base sheet with hot asphalt adhesive

applied within the EVT range and at a rate of 20-40 lbs./sq. with a 3" lap.

Maximum Design

Pressure: -45 psf. (See General Limitation #9)



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 43 of 60

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type C(7): Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply.

Insulation LayerInsulation Fasteners
(Table 3)Fastener
Density/ft²ISO 95+ GL, RESISTA1 or 2 with 31:1.33 ft²

Note: All Insulation shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Base Sheet: One ply of BASEGARD SA, self-adhered with a 3" lap.

Ply Sheet: (Optional) One or more plies of Ply IV, Ply VI, SBS Poly Base, SBS Smooth, SBS Base, or

SBS Premium Base with hot asphalt adhesive applied within the EVT range and at a rate of

20-40 lbs./sq. with a 3" lap.

or

One or more plies of SBS Glass Torch Base or SBS Poly Torch Base heat welded with a 3"

lap.

Membrane: One ply of SBS Glass FR Torch, SBS Glass FR Torch UltraWhite, SBS Torch, SBS Torch

UltraWhite, SBS Premium Torch, SBS Premium Torch UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite, SBS Premium FR Torch, SBS Premium FR Torch UltraWhite, APP 180, APP 180 UltraWhite, APP 180 FR or APP 180 FR UltraWhite cap sheet torch adhered to the

base sheet with a 3" lap.

Or

One ply of SBS Cap, SBS Cap UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS Premium, SBS Premium FR or SBS Premium FR UltraWhite cap sheet fully adhered to the base sheet with hot asphalt adhesive

applied within the EVT range and at a rate of 20-40 lbs./sq. with a 3" lap.

Maximum Design

Pressure: -45 psf. (See General Limitation #7)



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 44 of 60

SBS/APP **Membrane Type:**

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type (C8): Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply.

Base Insulation Layer (Optional)	<u>Insulation Fasteners</u> (Table 3)	<u>Fastener</u> <u>Density/ft²</u>
ISO 95+ GL Minimum ½" thick	N/A	N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft²

ISO 95+ GL, RESISTA, ISOGARD HD Composite

1:1.78 ft² Minimum 1-1/2" thick 1 or 2 with 3

Note: All Insulation shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Base Sheet: One ply of BASEGARD SA, self-adhered while maintaining minimum 3" side laps.

(Optional) One or more plies of SBS Base, Ply IV, Ply VI, SBS Poly Base, SBS Smooth or **Ply Sheet:**

SBS Premium Base fully adhered with hot asphalt adhesive applied within the EVT range

and at a rate of 25-30 lbs./sq. while maintaining minimum 3" side laps.

One or more plies of SBS Glass Torch Base or SBS Poly Torch Base heat welded while

maintaining minimum 3" side laps.

Membrane: One ply of SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS FR Cap, SBS FR

> Cap UltraWhite, SBS Cap, SBS Cap UltraWhite, SBS Premium, SBS Premium FR, or SBS Premium FR UltraWhite fully bonded with hot asphalt adhesive applied within the EVT

range and at a rate of 25-30 lbs./sq. while maintaining minimum 3" side laps.

One ply of SBS Glass FR Torch, SBS Glass FR Torch UltraWhite, SBS Torch, SBS Torch UltraWhite, SBS Premium Torch, SBS Premium Torch UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite SBS Premium FR Torch, SBS Premium FR Torch UltraWhite while

maintaining 3" side laps.

Maximum Design

Pressure: -60 psf. (See General Limitation #7)



NOA No.: 13-0522.06 **Expiration Date: 02/07/18** Approval Date: 02/27/14

Page 45 of 60

SBS Membrane Type:

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

Membrane fully adhered over mechanically fastened insulation. System Type C(8):

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	<u>Fastener</u> <u>Density/ft²</u>
ISO 95+GL, RESISTA Minimum ½" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	<u>Fastener</u> <u>Density/ft²</u>
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum ½" thick	1 or 2 with 3	1:1.6 ft ²
RESISTA Minimum: 1" thick	1 or 2 with 3	1:1.6 ft ²

Note: Top Layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

One ply of BASEGARD SA, self-adhered while maintaining minimum 3" side laps. **Base Sheet:**

Ply Sheet: (Optional) One or more plies of SBS Base, Ply IV, Ply VI, SBS Poly Base, SBS Smooth or

SBS Premium Base fully adhered with hot asphalt adhesive applied within the EVT range and

at a rate of 25-30 lbs./sq. while maintaining minimum 3" side laps.

One or more plies of SBS Glass Torch Base or SBS Poly Torch Base heat welded while

maintaining minimum 3" side laps.



NOA No.: 13-0522.06 **Expiration Date: 02/07/18** Approval Date: 02/27/14

Page 46 of 60

Membrane:

One ply of SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Cap, SBS Cap UltraWhite, SBS Premium, SBS Premium FR, or SBS Premium FR UltraWhite fully bonded with hot asphalt adhesive applied within the EVT range and at a rate of 25-30 lbs./sq. while maintaining minimum 3" side laps.

Or

One ply of SBS Glass FR Torch, SBS Glass FR Torch UltraWhite, SBS Torch, SBS Torch UltraWhite, SBS Premium Torch, SBS Premium Torch UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite SBS Premium FR Torch, SBS Premium FR Torch UltraWhite while maintaining 3" side laps.

Maximum Design

Pressure: -67.5 psf. (See General Limitation #7)



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14

Page 47 of 60

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type C(9): Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft ²
ISO 95+GL, RESISTA Minimum 1" thick	N/A	N/A
Top Insulation Layer	<u>Insulation Fasteners</u> (<u>Table 3</u>)	<u>Fastener</u> <u>Density/ft²</u>
SECUROCK Gypsum-Fiber Roof Board Minimum 1/4" thick	1 or 2 with 3	1:1.78 ft²

Minimum ¼" thick 1 or 2 with 3 1:1./8 f

Note: All Insulation shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Base Sheet: One ply of BASEGARD SA, self-adhered while maintaining minimum 3" side laps.

Ply Sheet: (Optional) One or more plies of SBS Base, Ply IV, Ply VI, SBS Poly Base, SBS Smooth or

SBS Premium Base fully adhered with hot asphalt adhesive applied within the EVT range and

at a rate of 25-30 lbs./sq. while maintaining minimum 3" side laps.

Or

One or more plies of SBS Glass Torch Base or SBS Poly Torch Base heat welded while

maintaining minimum 3" side laps.

Membrane: One ply of SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS FR Cap, SBS FR Cap

UltraWhite, SBS Cap, SBS Cap UltraWhite, SBS Premium, SBS Premium FR, or SBS Premium FR UltraWhite fully bonded with hot asphalt adhesive applied within the EVT

range and at a rate of 25-30 lbs./sq. while maintaining minimum 3" side laps.

Or

One ply of SBS Glass FR Torch, SBS Glass FR Torch UltraWhite, SBS Torch, SBS Torch UltraWhite, SBS Premium Torch, SBS Premium Torch UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite SBS Premium FR Torch, SBS Premium FR Torch UltraWhite while

maintaining 3" side laps.

Maximum Design

Pressure: -67.5 psf. (See General Limitation #7)



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 48 of 60

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type C(10): Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	<u>Fastener</u> <u>Density/ft²</u>
ISO 95+GL, RESISTA Minimum 1" thick	N/A	N/A
	1,472	
Top Insulation Layer	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener</u> <u>Density/ft²</u>
SECUROCK Gypsum-Fiber Roof Board		
Minimum ½" thick	4 with 3	$1:1.78 \text{ ft}^2$

Note: Top Layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Base Sheet: One ply of BASEGARD SA, self-adhered while maintaining minimum 3" side laps.

Ply Sheet: (Optional) One or more plies of SBS Base, Ply IV, Ply VI, SBS Poly Base, SBS Smooth or

SBS Premium Base fully adhered with hot asphalt adhesive applied within the EVT range and

at a rate of 25-30 lbs./sq. while maintaining minimum 3" side laps.

Ot

One or more plies of SBS Glass Torch Base or SBS Poly Torch Base heat welded while

maintaining minimum 3" side laps.

Membrane: One ply of SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS FR Cap, SBS FR Cap

UltraWhite, SBS Cap, SBS Cap UltraWhite, SBS Premium, SBS Premium FR, or SBS Premium FR UltraWhite fully bonded with hot asphalt adhesive applied within the EVT

range and at a rate of 25-30 lbs./sq. while maintaining minimum 3" side laps.

Or

One ply of SBS Glass FR Torch, SBS Glass FR Torch UltraWhite, SBS Torch, SBS Torch UltraWhite, SBS Premium Torch, SBS Premium Torch UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite SBS Premium FR Torch, SBS Premium FR Torch UltraWhite while

maintaining 3" side laps.

Maximum Design

Pressure: -75 psf. (See General Limitation #7)



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 49 of 60

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type C(11): Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	<u>Insulation Fasteners</u> (Table 3)	Fastener Density/ft ²
ISO 95+ GL, RESISTA Minimum ½" thick	N/A	N/A
Top Insulation Layer	<u>Insulation Fasteners</u> (<u>Table 3)</u>	<u>Fastener</u> <u>Density/ft²</u>
ISOGARD HD Composite Minimum 1½" thick	1 or 2 with 3	1:1.78 ft ²

Note: Insulation shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Base Sheet: One ply of BASEGARD SA, self-adhered while maintaining minimum 3" side laps.

Ply Sheet: (Optional) One or more plies of SBS Base, Ply IV, Ply VI, SBS Poly Base, SBS Smooth or

SBS Premium Base fully adhered with hot asphalt adhesive applied within the EVT range and

at a rate of 25-30 lbs./sq. while maintaining minimum 3" side laps.

Or

One or more plies of SBS Glass Torch Base or SBS Poly Torch Base heat welded while

maintaining minimum 3" side laps.

Membrane: One ply of SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS FR Cap, SBS FR Cap

UltraWhite, SBS Cap, SBS Cap UltraWhite, SBS Premium, SBS Premium FR, or SBS Premium FR UltraWhite fully bonded with hot asphalt adhesive applied within the EVT

range and at a rate of 25-30 lbs./sq. while maintaining minimum 3" side laps.

Or

One ply of SBS Glass FR Torch, SBS Glass FR Torch UltraWhite, SBS Torch, SBS Torch UltraWhite, SBS Premium Torch, SBS Premium Torch UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite SBS Premium FR Torch, SBS Premium FR Torch UltraWhite while

maintaining 3" side laps.

Maximum Design

Pressure: -75 psf. (See General Limitation #7)



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 50 of 60

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type (C12): Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply.

Base Insulation Layer (Optional)Insulation Fasteners
(Table 3)Fastener
Density/ft²

ISO 95+ GL, RESISTA

 $Minimum \frac{1}{2}" thick N/A N/A$

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Tensity/ft²

ISOGARD HD Composite

Minimum $1\frac{1}{2}$ " thick 1 or 2with 3 1:2.67 ft²

Note: All Insulation shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Base Sheet: One ply of BASEGARD SA, self-adhered while maintaining minimum 3" side laps.

Ply Sheet: (Optional) One or more plies of SBS Base, Ply IV, Ply VI, SBS Poly Base, SBS Smooth or

SBS Premium Base fully adhered with hot asphalt adhesive applied within the EVT range

and at a rate of 25-30 lbs./sq. while maintaining minimum 3" side laps.

Or

One or more plies of SBS Glass Torch Base or SBS Poly Torch Base heat welded while

maintaining minimum 3" side laps.

Membrane: One ply of SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS FR Cap, SBS FR

Cap UltraWhite, SBS Cap, SBS Cap UltraWhite, SBS Premium, SBS Premium FR, or SBS Premium FR UltraWhite fully bonded with hot asphalt adhesive applied within the EVT

range and at a rate of 25-30 lbs./sq. while maintaining minimum 3" side laps.

Or

One ply of SBS Glass FR Torch, SBS Glass FR Torch UltraWhite, SBS Torch, SBS Torch UltraWhite, SBS Premium Torch, SBS Premium Torch UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite SBS Premium FR Torch, SBS Premium FR Torch UltraWhite while

maintaining 3" side laps.

Maximum Design

Pressure: -60 psf. (See General Limitation #7)



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 51 of 60

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type(C13): Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply.

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	<u>Fastener</u> <u>Density/ft²</u>
ISO 95+ GL, RESISTA Minimum 1" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	<u>Fastener</u> <u>Density/ft²</u>
ISOGARD HD Minimum ½" thick	1 or 2 with 3	1:1.33 ft ²
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum 1/4" thick	1 or 2 with 3	1:1.33 ft ²
RESISTA Minimum 1" thick	1 or 2 with 3	1:1.33 ft ²

Note: All Insulation shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Base Sheet: One ply of BASEGARD SA, self-adhered while maintaining minimum 3" side laps.

Ply Sheet: (Optional) One or more plies of SBS Base, Ply IV, Ply VI, SBS Poly Base, SBS Smooth or

SBS Premium Base fully adhered with hot asphalt adhesive applied within the EVT range

and at a rate of 25-30 lbs./sq. while maintaining minimum 3" side laps.

Or

One or more plies of SBS Glass Torch Base or SBS Poly Torch Base heat welded while

maintaining minimum 3" side laps.



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 52 of 60 Membrane:

One ply of SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Cap, SBS Cap UltraWhite, SBS Premium, SBS Premium FR, or SBS Premium FR UltraWhite fully bonded with hot asphalt adhesive applied within the EVT range and at a rate of 25-30 lbs./sq. while maintaining minimum 3" side laps.

Or

One ply of SBS Glass FR Torch, SBS Glass FR Torch UltraWhite, SBS Torch, SBS Torch UltraWhite, SBS Premium Torch, SBS Premium Torch UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite SBS Premium FR Torch, SBS Premium FR Torch UltraWhite while maintaining 3" side laps.

Maximum Design

Pressure: -52.5 psf. (See General Limitation #7)



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14

Page 53 of 60

SBS **Membrane Type:**

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type C(14): Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft ²
ISO 95+GL, RESISTA Minimum 2" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	<u>Fastener</u> <u>Density/ft²</u>
Dens Deck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum 1/2" thick	1 or 2 with 3	1:1.33 ft ²

Note: All Insulation shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Base Sheet: One ply of BASEGARD SA, self-adhered while maintaining minimum 3" side laps.

(Optional) One or more plies of SBS Base, Ply IV, Ply VI, SBS Poly Base, SBS Smooth or **Ply Sheet:**

SBS Premium Base fully adhered with hot asphalt adhesive applied within the EVT range and

at a rate of 25-30 lbs./sq. while maintaining minimum 3" side laps.

One or more plies of SBS Glass Torch Base or SBS Poly Torch Base heat welded while

maintaining minimum 3" side laps.

Membrane: One ply of SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS FR Cap, SBS FR Cap

> UltraWhite, SBS Cap, SBS Cap UltraWhite, SBS Premium, SBS Premium FR, or SBS Premium FR UltraWhite fully bonded with hot asphalt adhesive applied within the EVT

range and at a rate of 25-30 lbs./sq. while maintaining minimum 3" side laps.

One ply of SBS Glass FR Torch, SBS Glass FR Torch UltraWhite, SBS Torch, SBS Torch UltraWhite, SBS Premium Torch, SBS Premium Torch UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite SBS Premium FR Torch, SBS Premium FR Torch UltraWhite while

maintaining 3" side laps.

Maximum Design

Pressure: -75 psf. (See General Limitation #7)



NOA No.: 13-0522.06 **Expiration Date: 02/07/18** Approval Date: 02/27/14

Page 54 of 60

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type C(15): Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	<u>Fastener</u> <u>Density/ft²</u>
ISO 95+ GL, RESISTA Minimum ½" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	<u>Fastener</u> <u>Density/ft²</u>
ISO 95+GL, RESISTA Minimum 2" thick	1 with 3	1:2.67 ft ²
ISOGARD HD Composite Minimum 1½" thick	1 with 3	1:2.67 ft ²
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum ½" thick	1 with 3	1:2.67 ft ²

Note: Insulation shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Base Sheet: One ply of BASEGARD SA, self-adhered while maintaining minimum 3" side laps.

Ply Sheet: (Optional) One or more plies of SBS Base, Ply IV, Ply VI, SBS Poly Base, SBS Smooth or

SBS Premium Base fully adhered with hot asphalt adhesive applied within the EVT range and

at a rate of 25-30 lbs./sq. while maintaining minimum 3" side laps.

Or

One or more plies of SBS Glass Torch Base or SBS Poly Torch Base heat welded while

maintaining minimum 3" side laps.



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 55 of 60 Membrane:

One ply of SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Cap, SBS Cap UltraWhite, SBS Premium, SBS Premium FR, or SBS Premium FR UltraWhite fully bonded with hot asphalt adhesive applied within the EVT range and at a rate of 25-30 lbs./sq. while maintaining minimum 3" side laps.

Or

One ply of SBS Glass FR Torch, SBS Glass FR Torch UltraWhite, SBS Torch, SBS Torch UltraWhite, SBS Premium Torch, SBS Premium Torch UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite SBS Premium FR Torch, SBS Premium FR Torch UltraWhite while maintaining 3" side laps.

Maximum Design

Pressure: -45 psf. (See General Limitation #7)



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 56 of 60

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type D(1): All layers of insulation simultaneously mechanically fastened with base sheet

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	<u>Fastener</u> <u>Density/ft²</u>
ISO 95+ GL, RESISTA Minimum ½" thick	N/A	N/A
Top Insulation Layer	<u>Insulation Fasteners</u> (<u>Table 3</u>)	<u>Fastener</u> <u>Density/ft</u> ²
ISO 95+ GL, RESISTA, ISOGARD HD Composite Minimum 1½" thick	N/A	N/A
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum ½" thick	N/A	N/A

Note: Insulation shall be loose-laid and membrane mechanically fastened. See base sheet attachment below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements.

Base Sheet: One ply of SBS Poly Base mechanically fastened through the insulation with Firestone

Heavy-Duty fasteners and Coiled Metal Batten Strip spaced 18" o.c. at the minimum 3" side

laps.

Ply Sheet: One ply of BASEGARD SA self-adhered to base sheet with minimum 3" side laps.

Membrane: One ply of SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS FR Cap, SBS FR Cap

UltraWhite, SBS Cap, SBS Cap UltraWhite, SBS Premium, SBS Premium FR, or SBS Premium FR UltraWhite fully bonded with hot asphalt adhesive applied within the EVT

range and at a rate of 25-30 lbs./sq. while maintaining minimum 3" side laps.

Or

One ply of SBS Glass FR Torch, SBS Glass FR Torch UltraWhite, SBS Torch, SBS Torch UltraWhite, SBS Premium Torch, SBS Premium Torch UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite SBS Premium FR Torch, SBS Premium FR Torch UltraWhite while

maintaining 3" side laps.

Maximum Design

Pressure: -52.5 psf (See General Limitation #7.)



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 57 of 60

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type D(2): All layers of insulation simultaneously mechanically fastened with base sheet

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Base Insulation Layer (Optional)	<u>Insulation Fasteners</u> (Table 3)	<u>Fastener</u> <u>Density/ft²</u>
ISO 95+ GL, RESISTA Minimum ½" thick	N/A	N/A
Top Insulation Layer	<u>Insulation Fasteners</u> (<u>Table 3</u>)	<u>Fastener</u> <u>Density/ft²</u>
ISO 95+ GL, RESISTA Minimum 1" thick	N/A	N/A
ISOGARD HD Composite Minimum 1½" thick	N/A	N/A
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum 1/4" thick	N/A	N/A

Note: Insulation shall be loose-laid and membrane mechanically fastened. See base sheet attachment below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements.

Base Sheet: One ply of SBS Base mechanically fastened through the insulation with Firestone Heavy-

Duty fasteners or Firestone Concrete Drive and Firestone Insulation Fastening Plates spaced 12" o.c. at the minimum 3.4" side laps and 12" o.c. in two staggered rows in the field of the

roll.

Ply Sheet: One ply of BASEGARD SA self-adhered to base sheet with minimum 3" side laps.

Membrane: One ply of SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS FR Cap, SBS FR Cap

UltraWhite, SBS Cap, SBS Cap UltraWhite, SBS Premium, SBS Premium FR, or SBS Premium FR UltraWhite fully bonded with hot asphalt adhesive applied within the EVT

range and at a rate of 25-30 lbs./sq. while maintaining minimum 3" side laps.

Or

One ply of SBS Glass FR Torch, SBS Glass FR Torch UltraWhite, SBS Torch, SBS Torch UltraWhite, SBS Premium Torch, SBS Premium Torch UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite SBS Premium FR Torch, SBS Premium FR Torch UltraWhite while

maintaining 3" side laps.

Maximum Design

Pressure: -60 psf (See General Limitation #7.)



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 58 of 60

Deck Type 3: Concrete, Non-Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type F(1): Membrane adhered to substrate

All General and System Limitations Apply.

Primer: ASTM D-41 primer applied at a rate of ³/₄ - 1 gal/square.

Base Sheet: One ply of BASEGARD SA, self-adhered with a 3" lap.

Ply Sheet: (Optional) One or more plies of Ply IV, Ply VI, SBS Poly Base, SBS Smooth, SBS Base, or

SBS Premium Base with hot asphalt adhesive applied within the EVT range and at a rate of

20-40 lbs./sq. with a 3" lap.

or

One or more plies of SBS Glass Torch Base or SBS Poly Torch Base heat welded with a 3"

lap.

Membrane: One ply of SBS Glass FR Torch, SBS Glass FR Torch UltraWhite, SBS Torch, SBS Torch

UltraWhite, SBS Premium Torch, SBS Premium Torch UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite, SBS Premium FR Torch, SBS Premium FR Torch UltraWhite, APP 180, APP 180 UltraWhite, APP 180 FR or APP 180 FR UltraWhite cap sheet torch adhered to the

base sheet with a 3" lap.

Or

One ply of SBS Cap, SBS Cap UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS Premium, SBS Premium FR or SBS Premium FR UltraWhite cap sheet fully adhered to the base sheet with hot asphalt adhesive

applied within the EVT range and at a rate of 20-40 lbs./sq. with a 3" lap.

Maximum Design

Pressure: -135 psf. (See General Limitation #9)



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 59 of 60

CONCRETE DECK SYSTEM LIMITATIONS:

 If mechanical attachment to the structural deck through the lightweight insulating concrete is proposed, a field withdrawal resistance testing shall be performed to determine equivalent or enhanced fastener patterns and density. All testing and fastening design shall be in compliance with Testing Application Standard TAS 105 and Roofing Application Standard RAS 117, calculations shall be signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant.

GENERAL LIMITATIONS:

- 1. Fire classification is not part of this acceptance, refer to a current Approved Roofing Materials Directory for fire ratings of this product.
- 2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
- 3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
- 4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each sidelap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq. Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.
- 5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. insulation attachment shall not be acceptable.
- 6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
- 7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant (When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)
- 8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform with Roofing Application Standard RAS 111 and applicable wind load requirements.
- 9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). (When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)
- 10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 61G20-3 of the Florida Administrative Code.

END OF THIS ACCEPTANCE



NOA No.: 13-0522.06 Expiration Date: 02/07/18 Approval Date: 02/27/14 Page 60 of 60